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The Irish Veterinary College.

Some light has been thrown upon this proposed new institution by a letter from Mr. Matt. Hedley which we copy from *The Irish Times*. It had been supposed that the promoters desired to ignore the veterinary profession and that they considered their own inductions, as to how a veterinary teaching school should be arranged, superior to any experience possessed by our profession. This impression is wrong, but it must be admitted that until Mr. Hedley wrote there was every indication of neglect.

We now find that Mr. Hedley has been behind the scenes for a long time, and that the promoters have consulted him at every step. One very important point Mr. Hedley mentions—"When first consulted about this subject" he says "I thought it necessary to make it understood that there is but one portal to the degree in Great Britain—through the Royal College of Veterinary Surgeons (an examining, not a teaching body) and if there was any intention of now establishing a new diploma-granting body, such would have neither my sympathy nor support. It was eventually agreed that as the R.C.V.S. has power to examine in Ireland no attempt would be made to seek degree-conferring powers by the Irish College."

This is the important point to us as a corporate body, and it at once renders unnecessary any opposition by the Council to an Irish chartered school. Our objection to a degree-conferring college is not founded on any jealousy, but on the conviction that if diplomas were granted by more than one body we should soon have a competition for graduates, and thus a reduction in the standard of excellence. Only for a very few years has the R.C.V.S., really had a free hand in fixing the standard of examination. Until the 1881 Act was obtained the Council never dared to move lest existing schools should take fright and combine to establish another degree. Now our diploma is the only title to the assumption of the words Veterinary Surgeon, and this privilege is of less advantage to us as a profession than to the public as a safeguard against inferior practitioners. We hope that the Irish gentlemen who so kindly interest themselves in veterinary teaching will always recognise that one licensing body for the United Kingdom is the best arrangement, not only for veterinarians but for stock-owners.

Perhaps it is not fair to treat too seriously the misguided expressions of an excited student. In *The Irish Daily Independent* a long letter recently appeared from an Edinburgh veterinary student taking a distinctly antagonistic view of the R.C.V.S. The writer insists on "the absolute necessity not only for an Irish college but for a separate board of examiners." He remarks that there "are *only two* Irish practitioners on the examining board." How many did he expect? It is a pity to find even a veterinary student assuming this attitude, but perhaps when he has taken the trouble to become informed on the whole subject he will change his opinion.

Our Extracts.

As usual just about quarter day, and especially at this spring quarter when practitioners are becoming busier, we have to regret the dearth of original matter for our pages. Reports of Veterinary Societies' Meetings, too, which come upon us thick and fast during the month of March, are this week entirely absent, and we are therefore able to find space for some of the extracts we have been obliged to pass by in the last few weeks. Possibly some readers will not think the disadvantage altogether on one side. They may agree with the parson who held that a first-rate sermon even if second-hand was better than a fifth-rate dissertation when original. We endeavour to select those of a readable and instructive nature—always with a direct bearing on our own calling. Continuing our sketches of the leading men of the first part of the century, we this week publish an article on Bracy Clark. Knowing that competition and quackery are always forcing themselves unpleasantly on the notice of practitioners we have printed a long quotation from the address of a medical gentleman on these questions. Every word of it is applicable to veterinary practitioners, and will bear the most careful consideration.

To most of our readers the abstract of a lecture by Dr. Haycraft on "Darwinism and Race Progress" will be an intellectual treat, and to all it will be most interesting. To the thoughtful man who watches with interest the progress of an individual, a profession, or a nation, this lecture will open up new lines of thought and be of great assistance in helping the comprehension of most intricate problems. It is almost startling to read—"Only since Darwin's time has mankind obtained anything like an approximate idea of the way in which racial change is brought about. In former times men thought that by the transmitted effects of good hygiene, education, and kindly treatment this could be effected—and in that belief they were profoundly mistaken."

This lecture only fixes the biological standpoint; there are two more which practically apply the truths here laid down, and these we propose to reprint in part next week.

CASES AND ARTICLES.

THE ABSORPTION OF SPLINTS.

By R. C. Irving, F.R.C.V.S.

It is remarkable how a large splint will sometimes disappear under treatment, and occasionally without any treatment. Very few five-year-old horses are quite free from some small splints, and very few aged horses show any bony enlargements between the large and small metacarpal bones. The question arises—what is the composition of the swelling we call a splint? Does it consist of bone or is a great part of it merely thickened fibrous tissue? Every day we see cases of hard fibrous thickening which gradually disappears, and we see bony enlargements upon different parts of the body which never decrease and very often gradually increase. It seems easier to believe in the absorption of fibrous material or of inflammatory exudates than of hard bone, but I think in some cases of splint we have distinct proof that bony deposits of some size may become entirely absorbed.

I do not wish to suggest that all the bulk of a splint is osseous tissue. I know that in recent splints quite half the enlargement is in the softer tissues covering the bone. These are the cases in which embrocations and blisters seem to cause such an amount of absorption that the popular idea is that they are "sweated away," or that the desquamated cuticle which follows the repeated applications removes the splint gradually, in somewhat the same manner that an onion might be decreased by consecutive removals of its layers.

There are cases however in which the splint consists of a large proportion of hard bony tissue which may become absorbed. These do not seem to yield to embrocations and blisters applied to the surface of the skin but they are amenable to treatment applied direct to the exostosis. The now almost disused operation of periosteotomy probably had some effect upon the bony enlargement other than relieving tension and so removing pain. In a remarkable case in which one of our clients suggested the operation and accepted all risks, the splint was sawn into with a fine narrow saw. An opening through the skin was made below the splint, a seton needle was then passed over the splint so as to separate the skin, and when withdrawn the saw was introduced and by a few movements buried in the splint. No after treatment was adopted, except to keep open and clean the small transverse cut through the skin. From this there was a slight discharge for a few days, and there was a little diffused swelling about the leg. Six months later when we saw the horse again there was no sign of a splint, nor did resumption of work cause any change in the leg. I do not recommend this operation, I only state what happened in this one case, and I confess I should not be surprised if increased size of the splint had resulted.

The treatment I place most faith in is puncture-firing. I use the ordinary iron about the size of a thick penholder and pointed like a lead pencil, or I use the narrow point of the thermo-cautery. Of course the splints I am referring to are those that cause lameness—others, I think, are best let alone.

CHOREA OF THE LARYNX.

By H. Peele, Durham. Student R.V.C.

The following case came under my notice whilst at home for the Easter vacation. It was of especial interest at the time because the condition had been, only a few days before, brought before us in a lecture on "Roaring" by Prof. Penberthy, stress being laid on the necessity of being able to differentiate the two conditions.

The subject was an aged pony which was said to have something wrong with its throat. On examination the animal was found to be making a noise during inspiration which at one time wonld not be distinguishable from "whistling," and at another time, especially when the pony was approached or excited, was much increased and became almost a squeal. When left quiet the noise subsided and there was apparently nothing the matter. Exercise did not make any difference, the animal sometimes trotting round the yard without any noise in the breathing, and then perhaps when trotted again would make the whistling sound. The pony appeared to be in perfect health otherwise; feeding well, no cough, and quite lively. The owner wished to have the animal destroyed at once, but it was treated for two or three days with arsenic and a blister to the throat. No improvement was seen so the animal was destroyed.

BRACY CLARK, F.L.S., M.R.C.V.S.
1771—1860.

Amongst the seven young men who formed the first class of veterinary students ever drawn together in this country none is more worthy of remembrance than Bracy Clark. We have been unable to secure any portrait of this gentleman, and had it not been for a sketch of his life published in *The Edinburgh Veterinary Review* there would have been very few biographical details available. The following account is practically a reprint of that article with a paragraph or two on purely veterinary matters.

Bracy Clark was born on the 7th of April, 1771; he received his distinctive name in commemoration of his paternal grandmother, Margaret Bracy, the last representative of an ancient Norman family of that name, settled at Long Compton, in Warwickshire. His father, a member of the Society of Friends, was a highly respectable tradesman of Chipping Norton, in Oxfordshire, engaged in the leather trade, and the possessor of land in the town and neighbourhood. Before he was two years old he became an orphan. At the age of eight he was sent to

a large school at Burford, in Oxfordshire. It was kept by Thomas Huntley, who enjoyed considerable reputation for his latinity, and succeeded in infusing a taste for the classics amongst his pupils.

At the age of fourteen he left Burford School, and was apprenticed to Mr. John Thresher, a surgeon at Worcester, who died about a twelvemonth after; the business was purchased by a Mr. Field, with whom he stayed till the expiration of his apprenticeship. His master became much attached to him, and they studied Greek together, by reading the New Testament of an evening; this study he considered of great advantage to him.

The general practitioners of that day had more to do with pharmaceutical processes than is commonly the case at present; and some good formulæ in Bracy Clark's veterinary pharmacopœia may be traced to his Worcester laboratory. He was much interested in the growing science of chemistry, then encumbered with the doctrine of phlogiston. Bracy Clark studied practically, and one of his friends still possesses a specimen of phosphorus which he produced during his apprenticeship.

He was led to the pursuit of natural history by a neighbouring apprentice with whom he used to go out entomologising. On one occasion, having been very successful when his friend was not with him, carrying the insects to him in triumph, he was mortified at the other refusing them as common things which he possessed already. Upon this Bracy declared he would make a collection for himself, and his natural assiduity enabled him soon to leave his friend far behind; he began the arrangement of his prizes according to Berkenhout's *Synopsis*, but some time after obtaining a copy of the *Systema Naturae* of Linnæus, he became enraptured with his nomenclature and classification, and remained his staunch adherent through life, so that his cabinet of insects was often visited by entomologists to verify doubtful specimens; into this cabinet he admitted no insects but such as had been described by Linnæus.

Before he left Worcester, Bracy Clark was known by correspondence to one or more of the distinguished continental entomologists of the time. But his youth was not spent entirely in mental research and cultivation. He established the first cricket club in Worcester, having become a tolerable adept at that game whilst living in Oxfordshire.

At the age of twenty-one, having completed his apprenticeship, he proceeded to London—and, by his cousin and guardian, John Zachary, Esq., he was introduced to Sir Joseph Banks, president of the Royal Society, and was elected a fellow of the Linnæan Society, which had been founded a few years before (in 1788) by the association of about sixteen gentlemen, lovers of natural history. During the next three or four years he continued his studies in medicine and surgery. Though he entered as a pupil to John Hunter, and became acquainted with that gentleman, he lost the opportunity of being his pupil, as Hunter had just ceased to lecture, and was succeeded by Everard Home and Dr. Bailey. Abernethy, (Sir) Astley Cooper, and Lawrence were his fellow students.

But though he studied human surgery, it was with the intention of qualifying himself as a veterinarian, his choice being thus directed by his eldest brother, Mr. Henry Clark, a gentleman fourteen years his senior, a lover of horses and a keen hunter. He represented to "the genius," as Bracy was called by him in later years, that there was a wide and unoccupied field, both for investigation and practice, in the new profession which was at that time commencing by the establishment of the Veterinary College at St. Pancras. Mr. Henry Clark, though he never studied the profession, seems to have had a taste for it, since, on hearing that there was to be a dissection of the famous horse Eclipse, he drove over to Canons, to be present at it. His younger brother very early attached himself to the Veterinary College, and used to mention with delight that he officially led the first horse into the establishment. His commencement of authorship was by a contribution to the *Gentleman's Magazine*; it was, "A short account of the celebrated racehorse Eclipse." His next appearance in public was the reading a paper before the Linnæan Society on the genus *œstrus*, or bots of horses and other domestic animals, 1st Nov. 1796. It was printed in the third volume of the *Linnœan Transactions*, and is one of the few articles written by the author which nowadays possess more than an historical interest.

In the year 1797, he resolved to visit one of his sisters, who was married to a Swiss gentleman of the name of Secretan, and settled in Lausanne. Sir Joseph Banks, who was very kind to scientific men, provided him with letters of recommendation to all the most distinguished naturalists of Switzerland and Germany, as did also Dr. Latham; with these he took his passage in a Yarmouth packet-boat for Hamburg; on her voyage the vessel was captured by an American privateer, and taken into Delftziel in Holland, where the passengers were subjected to hard treatment for two or three days, and deprived of such valuables as they had with them; our traveller's possessions were, however, not of a kind to excite cupidity, and he escaped with little loss. He remained for two years on the continent, where he was looked upon with much interest—it being then dangerous for Englishmen to enter within the bounds of countries under the control of France. Having in vain endeavoured to obtain permission to enter France, and proceed to study at the Veterinary Schools of Lyons and Paris, he returned to England, devoted himself to the study of the horse, and connected himself much with Mr. Moorcroft, and Mr. Edmund Bond, then established practitioners.

In the year 1800, he took premises in Giltspur Street, within the boundary of the city, opened an infirmary for horses, and set up a shoeing forge; and now his careful notice of facts and habit of reflecting and reasoning on the causes of what he observed, soon made him eminent in his profession. It seems early to have struck him, that it was out of the natural order of creation that horses should, after some years' usage, become *lame*; he had a keen eye for the slightest defect in their manner of stepping, and considered every defect as lameness.

In Clark's *Hippodonomia* is a most interesting

account of his unwearied researches into the causes of this lameness.

He traced its premature arrival to the methods of shoeing adopted, and set himself the task of a thorough enquiry into the anatomy and physiology of the horse's foot. It is remarkable with what unanimity everyone of the pioneer veterinarians attacked the subject of horse-shoeing. Moorcroft, St. Bel, Coleman, Bracy Clark, Youatt, Goodwin, Turner, Lawrence, and Blaine, all wrote and all differed in opinion. In the light of modern knowledge perhaps Moorcroft may be placed first as a useful practical guide, whilst Coleman and Bracy Clark are unequalled for their work on the anatomy and physiology of the foot. The great principle enunciated by Clark was that the foot was an elastic and expansive organ which could not be properly shod with a rigid shoe firmly attached by nails. He therefore advised a shoe jointed at the toe so that the expansion of the foot might not be interfered with. Between Clark and Coleman there seems to have arisen no little ill feeling. The latter, in his lectures at the College, either ignored or ridiculed the discoveries of the other, and Clark retaliated in his books and in articles which appeared in periodicals. Had the subject been a theological one it could not have inspired more dogmatism and bitterness than did farriery in the early years of this century. It may even be noticed that this spirit still survives amongst rival authorities on the foot and shoeing.

The enthusiasm with which Clark and others devoted themselves to the elucidation of any subject they took up certainly gave an impetus to veterinary progress. In those early days many men who had received a liberal education and who had studied human medicine, entered the veterinary profession, not merely as a business, but because they loved animals and were interested in the problems of life and disease. They possessed cultivated minds and literary ability. and the consequence was they contributed to veterinary literature in greater proportion than has ever been done since. Clark was a classical scholar and contributed to veterinary nomenclature quite a series of novel words which some few of our modern writers think have not been sufficiently adopted. This is a matter of opinion, and we confess we prefer the words Sensitive Laminæ to the term *Podophylla* and are satisfied to speak of the Frog and the Wall instead of the *Furca* and the *Onuchus*.

It must not, however, be supposed that the *feet* of the horse alone occupied the attention of the subject of our memoir. In arresting and curing diseases, Bracy Clark was wonderfully successful, and by his eminence in this respect made a large fortune, which he subsequently almost exhausted by experimenting upon shoeing and in printing and publishing. His treatises on the gripes of horses, on canker, on corns or bruises, on broken wind, and on conditioning, are filled with original and useful information; his *Pharmacopœia*, *History of the Horse*, *Anatomy*, essays on their various vices, amounting to thirty-six different publications, all issued at his own expense, nevertheless, for want of consulting with booksellers, and submitting in some degree to their advice, his works have remained mostly unsold, consequently a dead loss. That meed, however, which was denied him in gold and in credit among his fellow practitioners and his own countrymen, was, as far as possible, made up to him by honours abroad, and by the learned societies at home.

On the translation of his work on the foot, and its publication in French, he was elected a member of the Académie des Sciences at Paris, a distinction he, with reason, prized beyond any other; for his clever hobbles for casting horses during operations, and, when performed, unshackelling all the limbs at the same instant, he was rewarded with the silver medal of the Society of Arts of London; he was also elected a member of the Natural History Society of Berlin and of Copenhagen, also of New York, and of the Agricultural Society of Stuttgard; besides receiving various minor foreign honours, all of them unsought.

Clark was the means of preserving for the Museum of the Royal College of Veterinary Surgeons the skeleton of Eclipse. The skeleton was preserved by the Owner, O'Kelly, and given by him to Edmund Bond a leading Veterinary Surgeon of the day. On Mr. Bond's death his widow presented the skeleton to Bracy Clark, who sold it in 1860 to Professor John Gamgee, by whom it was in 1870 presented to the College.

It is rather remarkable that Bracy Clark did not contribute much to *The Veterinarian*, and that he seems to have taken very little part in the events which led to our obtaining the Charter of 1844. In the two volumes of *The Farrier and Naturalist* which appeared as a monthly magazine in 1828 and 1829 a number of Clark's shorter articles were reproduced, and some unsigned articles appear to bear the impress of his hand. In the obituary notice published by *The Veterinarian* it is said "To blend science with practice appeared to have been his desire, and his investigations stamp him as an original and ingenious thinker . . . . ." It cannot but be said, that he has left abundant proofs of his endeavours to advance the veterinary profession. May others emulate his example; for by it "he being dead, yet speaketh."

Having joined the original members of the Linnæan Society in 1793, and being by far its oldest fellow, he was recognised as the "Father of the Society" at the time of his decease, December the 16th, 1860, at the advanced age of eighty-nine. He was also the Father of the veterinary profession, his diploma being dated 1794.

Proposed Establishment of a Veterinary School.

On Tuesday evening, March 27th, at the Gresham Hotel, a largely attended meeting of the veterinary surgeons of Ireland was held, at which the following resolution was unanimously adopted:—

Resolved—That the existing practitioners in Ireland are in favour of the establishment of a Veterinary Training School, provided said school is conducted in a manner equal to other existing schools, and that said school does not interfere with existing practitioners.

EXTRACTS AND NOTES.

DARWINISM AND RACE PROGRESS.

By J. Berry Haycraft, M.D., Edin. &c.,
Professor of Physiology, University College, Cardiff.

THE BIOLOGICAL STANDPOINT.

Mr. President and Gentlemen.—The words *mederi*, to heal, *medicus*, the healer, and *medicina*, the remedy, indicate pretty clearly the relationship that existed, even up to recent times, between the medical profession and humanity at large: to cure the sick was the duty of the physician. Of late years, as our knowledge of disease has increased, and as the power to use the remedy has likewise increased, a useful and healthy scepticism has also arisen as to whether or not we have as much power over a disease when once it has established itself as was formerly thought to be the case. With real power a knowledge of the limits of that power has also come; and so it is that our energies are being spent at present to a large measure in the "prevention" of disease Even Hercules, hew as he might, could not rid the demon Hydra of its heads; Iolaus it was who with his burning iron prevented their growth. As soon as it was realised that disease was not the result of a special visitation of divine wrath, or of the association of the afflicted individual with an unlucky star, but that it was due to conditions of life under our control, preventive medicine arose to control these conditions, and wonderful have been the results achieved. The biologists are telling us that the effects of influences, both good and bad, under which we live are not transmitted to our offspring—that there is no accumulation of slight improvements capable of transmission to build up a perfect race. An unhealthy, feeble stock, in spite of constant sanitary attention, may always remain debilitated, and a race of fools can never by the constant and direct action of education alone be turned into a race of wise men and women. In times more primitive, and before the action of preventive medicine, the foolish and the sickly have as a rule gone to the wall, and the race has recruited itself from the most fit and owes its qualities to that "selection" of the fit and elimination of the less fit which have always been going on. If it is by "selection" that races of men, animals, and plants have come to be what they are, and if, as the biologists tell us, "selection" is by far the most powerful means of producing further change, then surely it behoves us to consider, firstly, whether this is true, and, secondly, if true, how it ought to affect our efforts as helpers of humanity.

Before the simultaneous publication in 1858 by Darwin and Wallace, of their "Law of Natural Selection" biologists believed in the Lamarckian view of heredity, a notable believer being our own Herbert Spencer. Lamarck said: "All that nature has caused individuals to acquire or lose through the circumstances to which their race has found itself for a time exposed, and consequently, through the predominant exercise of certain organs or through a failure to exercise certain parts, it preserves through heredity to the new individuals that are produced by them, provided the changes acquired are common to the two sexes or to those that have produced these new individuals." Thus Lamarck would have accounted for the long neck of the giraffe by supposing that it was at first a short-necked quadruped, that it exercised it neck in browsing off the trees, that the neck elongated in consequence of this use, and that this effect, even so slight, was transmitted, each generation of stretching accumulating until the present condition was established. In this Lamarckian view of heredity and racial change we have two ideas: first, fresh characters may be acquired during an individual's lifetime due to the action of environment; second, these are transmitted to the offspring and produce in time marked racial change. Now the first idea is certainly and admittedly true. We all recognise its truth from every-day experience. The build of a soldier, a clerk, a ploughman, and an athlete is distinctive; the horn upon a mechanic's hand and the muscle in a blacksmith's arm are matters of common observation. The second idea—whether these changes are transmitted—is the rock upon which the Lamarck boat will flounder; we shall see.

The law of natural selection, brought forward by Darwin and Wallace, may be stated as follows. No two offspring of the same parent are quite the same; they vary often widely. Under the conditions in which they live some of these offspring will, from the very fact that they differ from each other, have an advantage over the rest, and in the struggle for existence will run the better chance of carrying on the race and transmitting their inborn peculiarity. Keeping to the case of the giraffe the history of its development would be as follows. It was at one time advantageous, from the point of view of getting food, for the ancestral giraffe to browse upon trees, therefore those born with long necks and legs would have an advantage over the others, and would in greater numbers survive those with short legs and necks. These would have offspring the average of whose necks would be as long as their parents, but who would again vary, some having longer and other shorter necks. The ones with longer necks would again have an advantage and produce most offspring and so on. Now there are three ideas in this law of natural selection: first, that there are inborn variations among offspring even of the same family; secondly, that these variations, occurring in surrounding conditions on the whole uniform and common to all of them, will start some with an advantage and others with a relative disadvantage, and that those with an advantage will, more of them, tend to produce offspring; thirdly, that the variations, inborn in this case and not acquired, will probably be transmitted. That there are marked variations—physical, mental, and moral—among a litter of kittens or puppies is within the experience of everyone who has kept them, and that family variations are as marked is known to everyone who has brothers and sisters. It stands to reason also that these variations will be of advantage or disadvantage to their possessors, and that among animals and plants, where there are no social props to the weak the variations may and do determine survival. To give an idea of the keen struggle of existence which we find among the lower animals, we have only to enumerate the number of the progeny produced by each pair, which is often prodigious, and knowing as we do that the number of individuals in a species remain virtually the same in a given district for long periods of time together, that the room of the parents is just filled by a younger pair, all the excess of their progeny over and above this one pair must have succumbed in this great struggle. To give one concrete example out of hundreds that might have been selected, let us take the case of the golden eagle given by Weismann in his essay on the "Duration of Life." He says: "Let us fix the duration of life in the golden eagle at sixty years and its period of immaturity (of which the length is not exactly known) at ten years, and let us assume that it lays two eggs a year, then a pair will produce one hundred eggs in fifty years, and of these only two will develop into adult birds, and thus on an average a pair of eagles will only succeed in bringing a pair of young to maturity once in fifty years; and so far from being an exaggeration, this calculation rather under-estimates the proportion of mortality among the young." The struggle among the savage races of man must be excessive, and turning to

civilised life, do we not find that the sickly, stupid boy, fostered and assisted though he may be, does not have the same chance of success that his stronger and more able brothers have? The third idea in the law of natural selection—namely, that inborn variations are transmitted—is also a fact that is universally admitted not only among biologists at the present day, but by those who trust only to their everyday experience. "The child has its father's temper" or "its mother's eyes" are expressions heard in every nursery, while the innumerable cases of inborn drooping eyelids and supernumerary fingers and toes show the same thing in a more striking manner. The law of natural selection is therefore fact, every bit of it, and no mere theoretical improved fancy. The only question is, how far may this law be applied? If we grant the operation of natural selection as affecting race change—now universally admitted among biologists—there yet remains the question, How much race change has been due to selection: is there also a concomitant transmission of acquired inborn characters (Lamarck's view)? Darwin thought there was; he held that certain racial distinctions were due to the action of the environment of the parents and the transmission of the change thus produced upon their offspring. In his great work upon "The Variation of Animals and Plants under Domestication" he enumerates some of these. They may be divided roughly into two classes: first, instincts and habits; and, secondly, results of use and disuse. Darwin believed that the trained habits of dogs and horses, the tameness of the rabbit and other domestic animals, were due to the direct and transmitted effects of man's contact. He held that the large size of the leg and small size of the wing of the domestic as compared with the wild duck are gradually acquired and transmitted by use and disuse. It has been known now for many years that every cell in the body, including the sperm cells and ova, are descended from a fertilised ovum. Of these cells of the body all obviously die except those sperm cells and ova which give rise to the next generation, and so on. We have therefore a continuing chain of actual organic matter linking every living form with those that are most ancestral and remote, and from these chains all the so-called living individuals that have ever existed have, as it were, been thrown off. Many have emphasised this point, Owen, Haeckel and others; but perhaps Francis Galton must be given much of the credit of clearly stating it, though similar views have more recently been popularised among biologists by the delightful pen of Weismann. The "continuity of the germ plasm," the title by which this view is generally known, expresses the fact that germ substance continues in an unbroken line from generation to generation, a man is similar to his parents because he develops out of a similar plasm. The continuity of germ plasm, like Darwin's selection, is a fact, not a theory. We can imagine that the generative cells within our body are affected by what goes on in our other cells, or that they lie there unaffected, the lymph and blood being, in fact, the only channels of communication between the two; the continuity of the germ plasm does not compel us to accept either view. The fact of the continuity of germ plasm was shortly and precisely stated by Galton in 1875 and by Weismann in his "Studies in the Theory of Descent," published in English in 1882.

How much can we explain of racial change by selection, and how much must we leave over to be explained by the transmission of acquired characters? Here we are dealing with definite issues which can be settled by observation and direct experiment, and which have been so far settled already as to enable us to state such a conclusion as will safely guide us in further inquiry.

Darwin was more inclined in his later years to give an increasing value to selection and a less value to the transmission of acquired characters as factors in racial change than he was in his earlier writings. With time and extended experience he was inclined to give even greater emphasis to the latter than to the former. At times he admits that after all selection may account for the effects of use and disuse. Thus in the "Origin of Species" (pp. 117 and 118) we find: "If under changed conditions of life a structure, before useful, becomes less useful, its diminution will be favoured, for it will profit the individual not to have its nourishment wasted in building up useless structure. . . . Thus, I believe, natural selection will tend in the long run to reduce any part of the organisation as soon as it becomes through changed habits superfluous." Galton, as long ago as 1876, is most clear and concise as to this question. He says: The conclusion to be drawn from the foregoing arguments is that we might almost reserve our belief that the structural cells can react on the sexual elements at all, and we may be confident that at the most they do so in a very faint degree; in other words, that acquired modifications are barely, if at all, inherited in the correct sense of the word." Thirteen years later, during which period he had been a devoted investigator of the facts of heredity and an indefatigable collector of fresh facts, he expresses himself in precisely the same terms.

In 1882 August Weismann questions whether there is as yet any proof that acquired characters are transmitted. On p. 692 he writes: "The theoretical conception of variation as a reaction of the organism to external influences has also not yet been experimentally shown to be correct. Our experiments are still too coarse, as compared with the fine distinctions which separate one individual from another, and the difficulty of obtaining clear results is greatly increased by the circumstance that a portion of the individual duration always depends upon heredity, so that it is frequently not only difficult but absolutely impossible to separate those which are inherited from those which are acquired." Since that time Weismann, in a series of important essays indicating a profound knowledge not only of comparative morphology, but of the habits and modes of life of a vast number of animals and plants, has shown, first, that the cases which Darwin and others have assumed to be those of transmitted acquired characters may reasonably be explained, most of them, by selection; and secondly, that characters experimentally produced are, as a fact, not transmitted. The gradual increase, generation after generation, in the size of a useful limb or the perfection of a valuable organ of sense may readily be explained by selection alone. The fact that the limb or organ is of use to the race in its struggle will determine the survival of those born with the possibility of growing serviceable parts, and these in their turn will produce others as favourably and more favourably structured than they are, and so on. In this case we may assume the survival of a useful variation and are not compelled necessarily to assume that the used organ transmitted the effect of its usage in succeeding generations. In the same way a species with, say, a large limb or a well-developed sense organ will, under circumstances where these organs are of little or no use, gradually undergo a structural change, resulting in degeneration of the previously useful organ. As Darwin pointed out, a useless organ is an expense and a drain upon an animal's capital; it requires blood, its exercise uses up some of the sum total of energy the individual possesses. Where useless to the species those who have it badly developed, and in consequence have other and useful parts more fully formed, will have a distinct advantage over those who have a well-formed but useless organ. In this way we may explain the smallness of the wings of the tame as compared with the wild duck, a case in which Darwin saw difficulties in the way of excluding inherited disuse. In this manner we

may explain the still smaller wings of the running ostrich and apteryx and the rudimentary eyes of the blind fish of the Kentucky Cave and the blind burrowing mole. An animal or man in this respect is like someone with a given capital: if money is spent in one direction there is less for another purpose, so a big leg may mean a small arm, or a good ear be accompanisd by an indifferent eye. This is a point upon which direct experimental evidence may be obtained and some such evidence is already forthcoming. Mr. Bland Sutton informs us that if a young person loses an arm by amputation the other arm grows rapidly. He mentions, moreover, the more questionable case of a woman whose big toe was amputated, after which the next one grew to resemble it so much in size and appearance as to be mistaken for it by the attending students. Everyone is acquainted with cases where one kidney or lung can increase in size and compensate for the other lost by removal or disease. When we turn to the question of instincts and habits we find that it is possible to explain on the principle of selection, as Weismann has shown, some at least of the cases which presented difficulties to Darwin's mind. The tameness of rabbits, cats and dogs, which animals have for countless generations been subject to domestication, need not be explained by supposing that the results of taming are transmitted. It is easy to understand that those that rebelled most against man's authority and were by nature least tractable and gentle were less cared for or even killed by him, while the docile received his attention and were selected by him to perpetuate the race. That this selection must be going on at the pre sent time is very obvious; savage dogs are continually being destroyed and house dogs are in most cases selected from those that are docile and of good temper. One that does not possess these good qualities can have no existence in town or village, and so, by continual extermination of the unfriendly, the "friend of man" has gradually been evolved. It must be admitted that there are many cases about which no explanation can be given from the selective point of view, such, for instance, as the effect of climate upon the wool of sheep. In these cases, however, the information we possess is often of a slight nature, so that judgment can hardly be given at present, and all that we can say is that the closer these cases are studied the greater is the number which suffer a ready explanation as being cases which have been brought into existence through selection. This being so, the direct evidence we possess that experimentally induced changes such as the effects of mutilation and compressions of various parts of the body are in no cases transmitted, while we can vary an animal or plant almost at will by selective agencies, points strongly to selection as being the prime producer of racial change, while the direction action of the environment and the transmissions of its effects is of little if any account. Mutilations practised upon male infants by Jews and other Semitic races for thousands of years have still always to be repeated, for the lost parts are reproduced as at the earliest periods of the races' history. Many breeds of dogs and sheep have been for many generations systematically docked, and yet the young are born with as long tails as those of other breeds. Chinese women have compressed their feet from times long back in their history, yet Chinese infants are not born with small feet but have ever to undergo the fresh torture of their compression. More curious still, as affecting an organ of paramount importance, the brain, a certain tribe of Indians artificially flatten their heads in early life, entirely changing not only the shape of the skull but also that of the brain itself, and yet their children are born with rounded heads; the induced change is not transmitted.

We are bound, then, to admit that the thousands of germinal cells lying in the body of the parent are, like other cells of the body, of slightly different constitution —they vary among themselves in size and constitution. They live and are kept alive in the organ where they lie, and the rest of the parent organism may be mutilated, compressed, suffer change in parts from use or disuse, from climatic or other conditions, and the germ cells rest where they are unchanged. If they develop, the resulting individuals will be what the germs had it in their own nature to be, uninfluenced by changes induced in the body of the parent. But while there appears to be no subtle link between the brain or the hand of the parent and that of the part of the germ cell which may be destined to become brain or hand, the ovum must *live* on something, and that something is the parent's blood. The ovum may be affected, as all admit it to be, by changes in that fluid; its richness or poorness will have a potent effect, and poisons dissolved in it or microbes that float in it will influence the well-being of the ovum. The environment is not, therefore, without action upon the germinal cells, inasmuch as the parent may be thrown by adverse conditions into unhealthy states of body, under which circumstances the tissues, including the germ cells, will all alike suffer from want of nutrition and may suffer if changes occur that are of a positively injurious nature in the quality of the blood. We medical men would sum up the whole subject by saying that a constitutional, but not a purely local, disturbance may affect a germ cell. One man may use his arm and another his leg, and these members will hypertrophy in consequence. The voice may be trained or skill in music or reasoning may be acquired during the lifetime of an individual without affecting the constitution of the body; while, on the other hand, starvation or bad food will impoverish the blood and the whole system, and good food and healthy exercise will enrich the blood and endow it with energy, whilst acquired zymotic disease will produce general as well as local symptoms. In the former cases the germ cells will be unaffected, in the latter they may suffer change, in common with other tissues depending for their vitality, as they all do, upon the general well-being of the body. Both Galton and Weismann clearly draw the line that I have indicated; and when they state that the environmental changes produced in an individual are not transmitted they pointedly exclude those cases where the environment may act directly through the blood upon the germinal cells. We should prefer, in language familiar to us, to sum up their conclusions as follows. Purely local acquired characters are not transmitted, but acquired constitutional conditions may be transmitted (provided the blood and tissues generally share in that condition). I shall term those changes which the germ cell may undergo during their sojourn in the body of the parent, due to constitutional parental change induced by the environment, acquired germinal variations. Those variations of the germs from each other which cause them to develop into the markedly differentiated individual members of a family or litter (no two germinal or tissue cells being alike), I shall term in these lectures "innate germinal variations." We shall see in our further investigation of the conditions under which racial change may take place how important this distinction really is.

Before proceeding further it may be well to bring forward in some detail the evidence in favour of acquired germinal variations as defined above. Whereas we have seen the tendency is strongly in the direction of showing that variation cannot be acquired by the germ as the result of environmental changes in the parent of a local kind, and that all such apparent cases are explainable by selection, the evidence that variations can be acquired from constitutionally acquired parental changes is quite conclusive. Both among plants and animals the change from a better to a poorer food will in the individual lifetime diminish the size of the individual, affect the rich-

ness and quantity of the blood and sap, and so modify the size of the germinal cells, which depend for their growth and sustenance upon the blood or sap. By judicious pruning of the roots and branches, and by keeping to the lowest point the nutritive value of the soil supplied, the Japanese can keep down to the height of a tiny shrub the conifer of a hundred years' growth. All its parts, including its germinal cells, are dwarfed by this treatment and would, after having been so dwarfed, have no chance of growth in a normal soil as compared with the seeds of another plant that had been always normally nourished. Lemare telts us that hemp grows in Piedmont to twice the height that it atains in the less suitable soil and climate of France. If seeds are taken from Piedmont and sown in Frence they grow to an intermediate height; these seeds are affected and in the next generation they grow smaller still; while in the third they attain to the size of the dwarfed French variety. De Quatrefages tells us of the rapid change in size of horses and oxen when transferred from Brittany to Normandy. In three generations they become distinctly bigger and when tranferred back to Brittany they assume the smaller type in about the same time. One could multiply similar instances to show that the size of offspring may vary to some extent with the nutrition of their parents. In respect to qualitive changes in the offspring due to induced qualitative differences in the parents' blood we shall see in the next lecture that some diseases and predispositions to disease may clearly be traced to this agency.

We are now, I think, in a position to make a dogmatic statement of fact, and this statement will, I am sure, be found to be quite complete enough for all practical purposes. We cannot state that in no case does a local change produced by the environment acting directly upon an organism induce corresponding change in the germ cells within that organism. This is a point upon which complete unanimity of opinion is not to be had. We can, however, dogmatically affirm that while the evidence is here not sufficiently complete to convince a majority of naturalists as to its truth, everyone is agreed that the environment by selection can do almost anything in the way of producing racial change. Of this there is such overwhelming evidence that no one is prepared to dispute it. Selection is by so very far the most powerful factor that the transmission of acquired local characters, if it occurs at all, occurs to so slight a degree and under such special circumstances that, relatively to the other factors, it may be disregarded altogether. Environment may therefore act upon a race in two different ways. In the first case it may give a preference to certain innate qualities of certain members of the race, and so determine the production of the race from these, as when the tallest giraffe will browse best in the herd. In this way a gardener or breeder will In a few generations meet the requirements of the market or flower-show by selecting (so-called artificial selection) as race producers those plants or individual animals which most approximate in innate qualities to those qualities which he wishes to produce. We have also undeniable evidence that the environment can vary the size and general well-being of a race through the parental blood, and in the same way we shall see that poisons or micro-organisms introduced into the blood may cause qualitative changes in the germ cells which will appear in the individuals which develop from them as disease or as predisposition to disease. Only since Darwin's time has mankind obtained anything like an approximate idea of the way in which racial change is brought about, for if men dreamed in former times of the elimination of disease and evil dispositions and incapacity, with a view to the betterment of humanity, they had not the slightest idea as to how that change might surely be brought about. They thought that by the transmitted effects of good hygienic conditions, education, and kindly treatment this could be effected, and in that belief they were profoundly mistaken. The pages of history are full of the stories of vast empires which, starting full of hope and vigour, have crumbled away in time and are no more. We read of these and, maybe, often wonder at the apparent waste—whole races swept away amidst a million hardships, with a bare record of a page or two. We often wonder, too, whether this must be so with us, whether, as with a man, a nation has its allotted time to live. From the biological standpoint we may emphatically affirm that this is not so and that a race may be preserved and developed without catastrophe, without the terrible suffering which we have learnt to regard as inevitable—that we are as everlasting as life itself.—*The Lancet.*

IMPORTATION OF FOREIGN CATTLE.

Mr. H. Gardner (President of the Board of Agriculture), in company with Mr. T. H. Elliott, Mr. Cope, Mr. A. W. Anstruther, and Mr. Benson, M.P., received yesterday, at the offices of the Department, a very large and representative deputation asking for the compulsory slaughter, except under very special conditions, of all live cattle at the port of landing. The deputation was introduced by Mr. Channing, M.P. (president of the Central and Associated Chambers of Agriculture.)

Mr. Channing explained that the opinions of the large majority, not only of the agricultural bodies associated with the Central Chamber, but of the practical agriculturists in the country, were absolutely at one in the desire that the great victory which science and good administration had won over the diseases which in former years had decimated our flocks and herds and inflicted such disastrous losses on agriculture should be made complete, stable, and permanent.

Mr. St. John Ackers (Chairman of the Cattle Diseases Committee of the Central Chamber of Agriculture) pointed out that at the present moment the only country from which live cattle were imported was Canada, and they represented less than 3 per cent. of the meat supply of this country.

Mr. Freeman-Mitford, Earl Fortescue, Mr. Mills, Mr. Duckham, and Mr. Christopher Middleton having given expression to their views,

Mr. Gardner, in reply, drew attention to the necessity of defining the particular diseases against which it was asked that further and fuller safeguards should be imposed. ("Oh, oh.") The proposal which he was asked to carry out was nothing more nor less than universal and perpetual slaughter of foreign and colonial cattle at the port of debarcation. (Hear, hear.) That would be a very inefficient remedy against the two most dangerous, destructive, and costly diseases which stock-owners had to fear—namely, rinderpest and foot-and-mouth disease. At the present moment, if the Board of Agriculture saw any danger of the introduction of those diseases, they did not order slaughter at the ports of debarcation, but in the case of rinderpest they undoubtedly should prohibit, and in the case of foot-and-mouth disease they were bound by statute to prohibit the landing of all foreign cattle whatsoever in this country. He took it for granted that the only disease against which they had come to urge him to take further safeguards

was contagious pleuro-pneumonia, for there was no other disease against which slaughter at the ports afforded a full measure of security. If the members of the deputation wished to carry their point in this direction they must satisfy Parliament and the people of the country, first of all, that the step was necessary, and, secondly, that it was worth while to lay down an absolute and universal rule of slaughter at the ports merely in order to prevent a recrudescence of one disease, and one disease only. With regard to the necessity for the drastic measure which had been urged, the experience which the Department had gained in the course of their successful struggle with pleuro-pneumonia went to show that the present law afforded ample protection against its importation through the medium of foreign stock. With the exception of one animal, which was slaughtered immediately after it became affected, in no single instance was there reason to believe that any homebred animals had been affected with pleuro-pneumonia in consequence of contact with animals imported from another country, and that notwithstanding the fact that during the past 10 years over 1,500,000 animals had been allowed to be landed without restriction. The administration of the Contagious Diseases (Animals) Acts was one of the most anxious and responsible duties cast upon the President of the Board of Agriculture. He could not commend such a proposal to the House of Commons with any chance of success. At the present moment the Department was in a better position than ever before to prevent the serious consequences which would accrue to the country from the importation of pleuro-pneumonia. The risk of infection by means of foreign animals was very small, and the chance of disease spreading amongst our cattle was almost infinitesimal. Compulsory slaughter in all cases would undoubtedly act detrimentally upon our commercial relations with those countries and colonies which were now free from disease or which had reasonable hope of becoming so in the near future. They would protest very strongly againt the imposition of these restrictions when they knew that there was no cause to fear the introduction of disease into this country. In his view it would also be most unwise and detrimental to the best interests of this country to throw obstacles in the way of free imports, and to handicap our foreign and colonial trade unless they were in the presence of a real and proved necessity. Why should graziers who saw their way to make a good profit by the importation of live stock be precluded from doing so? He had come to the conclusion that from the farmers' point of view alone the loss attending compulsory slaughter would far exceed the advantages gained; for, whilst affording a very slight additional security, it would involve the payment of a greatly enhanced premium against the introduction of disease. The law as it stood, properly administered, afforded a sufficient remedy at no considerable expense to the taxpayer and with the *minimum* of loss to the agricultural community generally. He could not hold out any hopes that he would be in a position to advise Parliament to accept the proposals which the deputation had urged upon him.

THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

Sir Joseph Lister and the Council of the British Institute for Preventive Medicine are to be congratulated on the success which has been attending their efforts to establish in London an institute similar to the hygienic institutes in most large continental towns. The task of raising a sum sufficient to build such an establishment appeared to be a hopeless one, but an impetus was given to the work when the trustees of the late Mr. Berridge promised a sum of £20,000 provided £40,000 were raised from other sources for land and buildings. Thanks to the liberality of the late Earl of Derby, the Duke of Westminster, the Duke of Devonshire, Mr. L. Mond and many others, the requisite sum was obtained. The Grocers' Company showed their usual appreciation of scientific work by subscribing £10,000 to the funds of the institute. The Duke of Westminster was then approached with regard to a site, and gave further help by granting nearly an acre of land on the Chelsea Embankment at a price below its actual value. This situation, easily accessible from all parts of London, is an excellent one, as all the laboratories will look due north. Lastly, Dr. Armand Ruffer has been appointed a director for a period of three years, and Professor Macfadyen lecturer on bacteriology; Mr. Alfred Waterhouse, R.A., has been appointed architect. At the request of the Council, Dr. Ruffer retains his post as honorary secretary, which he has held since the project was first mooted.

MEDICAL COMPETITION AND QUACKERY.

In his annual address to the Southampton Medical Society, Mr. J. F. Bullar, M.A. M.B.Camb., F.R.C.S. Eng. dealt with questions of great interest to the veterinary as well as the medical practitioner.

After referring briefly to amateur advice and the custom prevalent among ladies especially of handing prescriptions they have received themselves to others whom they suppose to be suffering from the same disorder, he proceeded to consider the question of prescribing chemists. There was, he said, hardly a chemist who did not do a prescribing trade. A vast number, not only of the poor, but of the well-to-do and so-called educated classes, regarded a chemist as a kind of doctor. This want of appreciation of the fact that there was a difference in kind, and not merely in degree, between doctors and chemists, was a real medical grievance, and a hindrance to the full usefulness of the profession. The real superiority lay in the power of the medical man to diagnose diseases, to seek for their causes in all the circumstances of the patients' lives, and to apply treatment accordingly.

"I have a shrewd suspicion, amounting indeed to certainty, that a great deal of practice is done by members of our profession in a way that the public cannot be blamed for considering as identical with that done by chemists. We are all aware of the existence in our ranks of a certain class of medical men who treat their patients for such small fees that they can only make a living by seeing great numbers of patients, so many indeed that it is utterly impossible for them to give the time to make a diagnosis, or to do anything more than

sell a bottle filled from the handiest jar. This style of practice cannot by any possibility be successful, and no wonder if the patients discover that the doctor's medicine has no more virtue than the chemist's or the quack's, and act upon the discovery.

"Very likely what the patient really wants is not medicine at all, but instruction and advice. This he does not get either from the doctor or the chemist, and hence the idea gains ground that the function of the doctor and chemist is one and the same, namely, to sell physic to people who say they are ill.

"The prescribing chemist I regard as an individual whose existence is explained by that of the equally undesirable trading doctor. I feel certain that, if all the members of our profession would go carefully into the details of each case and treat it to the best of their ability, there would not long remain any public doubt as to the relative capacity of doctors and laymen in treating disease, for the mistakes we make are nearly all avoidable, and due solely to careless and insufficent examination of the patient."

"I am inclined to think that the real cause of our troubles is to be found in the unfortunate want of unity which exists among us and in the shortsightedness which disables us from seeing that, if we wish to thrive, we must seek first the interests of our profession in order that we may be raised by it. By want of unity we place ourselves at the mercy of the public, by underselling each other we reduce those below us to a condition of slavery which it would be the height of meanness to regard as the outcome of anything but dire necessity.

Mr. Bullar added that it was difficult to define professional respectability further than by saying that it was conduct which commanded the respect alike of the public and of the profession. There was a widespread feeling that the cheapest forms of practice were not respectable, but this was evidently a mistake. Many of the most honourable members of the profession had to work for less pay than the taking of the cheapest practices; as instances, he mentioned the sums received from clubs by general practitioners and the emoluments of casualty physicians and surgeons among the army of those who wait for hospital appointments and consulting practice in London. The respectability of any kind of practice really depended upon its good faith. It was disreputable to make money by false pretences, to rob the public by pretending to treat their ailments without sufficient examination as to what these ailments are. "It is my belief," he continued, "that duty and self interest very seldom lead different ways. It is our duty to do the best we can for our profession, to do all in our power to make it possible for every member of it to do his work faithfully, and to raise the profession and himself in public usefulness and estimation. If we would do this we must increase our fees to such an extent as to leave the possibility of an honest livelihood to those less fortunate than ourselves, and we must decline to treat by any unprofitable contract those who are able to pay proper fees. Everyone has to begin. An inexperienced man may rightly accept a small fee, but as he gets on in experience and in reputation, it is both his duty and his privilege to raise his fees and get more money for less work. It is his duty to raise his fees in order to avoid an ungenerous competition with his younger and still struggling brethren, and it is his privilege to reap the fruits of his labour, and to enjoy comparative ease while suffering no diminution, but rather securing an increase of income.

"In our profession a beginner must generally either eat his head off during years of painful waiting and competition on unfair terms with men of established reputation, or make a living by accepting lower fees. Thus each new comer is tempted to undersell the last.

"In London the position of the young consultants is tragic in the extreme; they are the victims of hope deferred, and their forlorn aspect wrings the heart of any unaccustomed beholder. The struggle for hospital appointments has resulted in the development of a race of hospital physicians and surgeons of a toughness that never fails, and whose birthdays seem to recur with ever diminishing frequency as they approach the sixty-fifth, that happy day which means another vacancy on the staff. It is the uniformity of fees which is to blame. How can a young man compete with a well-known leader of the profession if they both charge the same? Why should a leader of the profession have his time wasted and the soul ground out of him by a crowd of uninteresting patients, and laboriously make an income which he could double and make far more easily by simply raising his fees?

"I am told that the reason why the great consultants still charge so little is partly a want of unity among themselves, and partly a fear that they might be cut out by the younger men, of whose capacity they appear to stand in perfectly needless awe. It does not require a great power of observation to perceive that the public are but indifferent judges of capacity, or that they usually take a man at his own valuation. A general raising of fees by those at the top of the tree would render them still more attractive to the public, and larger incomes would be made, with more leisure in which to give the results of experience to the profession, while the younger men would have some scraps to stay their stomachs and less time to waste in wishing their elders in heaven."—*British Medical Journal.*

THE PROPOSED VETERINARY COLLEGE IN IRELAND.

TO THE EDITOR OF THE IRISH TIMES.

Sir,—For several weeks past ths Dublin Press has contained articles and letters referring to the above project; many are favourable. Some few do not appear to join in the chorus of satisfaction, but entertain a feeling that the promoters have a desire to crush the Dublin veterinary surgeon.

There have been expressions of surprise that the name of a veterinary surgeon did not appear among the names of those who were engaged in the several steps taken to promote the establishment of this college.

In fairness to the promoters I desire to take this opportunity of stating that for some months past I have been consulted by, and to a large extent have acted with these gentlemen. I have attended several of their meetings, and was asked to join the deputation that waited upon Mr. Morley recently. Owing to my official position I was advised that it would be better not to accept this invitation, hence my name did not appear among those who attended on that occasion.

Not only have the promoters consulted me, but they have been supported by Professor Cunningham, who for several years was associated with the Royal (Dick's) Veterinary College, Edinburgh, as a lecturer; also by Professor T. Carroll, who, I think it will be admitted, has a practical knowledge of the veterinary profession in its relation to agriculture generally. In these circumstances, I think, sir, you will agree that out of six promoters at least three have been directly interested in the well-being of our profession.

When first consulted about this subject I thought it necessary to make it understood that there is but one portal to the degree in Great Britain, namely—through the Royal College of Veterinary Surgeons (an examining not a teaching institution), and if there was any intention of now establishing a new diploma-granting body,

such would have neither my sympathy nor support. It was eventually agreed that as the R.C.V.S. has power to examine candidates in Ireland no attempt would be made to seek degree-conferring powers by the Irish College.

The scheme promulgated has been discussed by some of your correspondents, who seem to treat the statement as a final decision of the governing body. It must, however, be borne in mind that the details indicated cannot be binding; all such will be vested in a board of governors yet to be established by charter. The publication of the draft scheme may have been premature, because misapprehension has been raised. The promoters have not any wish to needlessly enter into competition with Dublin veterinarians beyond what may be required to furnish material for the purposes of the proposed College.

It is satisfactory to find that, so far as I am aware, those veterinary members who have expressed any opinion through the press are in favour of a Veterinary College in Ireland, especially in Dublin, and appear to consider that, if properly managed, must have a good effect both upon the profession and this, an agricultural country.—Yours, &c.,

MATT. HEDLEY, F.R.C.V.S.

Kissing Day in the Country.

The unique customs connected with hocktide are observed in Hungerford as they were in the days of John O'Gaunt. The most peculiar of them is that carried out by two prominent inhabitants, who with long poles decorated with choice flowers and blue streamers visit each house, and have the privilege of demanding a coin of the realm from the males and a kiss from the females. To-day being hocking day the custom has been carried out in his entirety. The "tutti" men, as they are called, are Mr. Davidson, M.R.C.V.S., and Mr. W. Alexander, coal merchant.

Horse Losses in War.

Let all who want to understand the waste of horse flesh in war read Veterinary-Captain F. Smith's paper on the subject, published this month by the Royal United Service Institution. It is a matter for profound thankfulness that our Army veterinary surgeons are taking the lead in matters affecting the humane and scientific treatment of the horse. Courage and kindness go together, and so do cowardice and cruelty.

CORRESPONDENCE.

THE VALUE OF A VETERINARY INSPECTOR.

SIR,

If the proposed Veterinary College for the "Emerald Isle" does come off we shall not be long ere we hear of Colleges being required in Wales and the Isle of Man. The poor V.S. will then have to give in his gun and start on some new game, such as leading an entire horse round the highways and byways of his adopted heath. To be brief, I enclose a copy of a circular that was sent by hand—by a corporation labourer, to the several V.S. in this city. Of course it goes without saying that the lowest tender "snatched the Banbury." For making a *thorough inspection* of the fair 5s., for a thorough inspection of the weekly sale 3s., and for inspection and report on animals on private premises within the Borough 3s. I also enclose a printed list of the number of beasts that are to be sold at this sale on Tuesday in this week. Thanking you, Mr. Editor, in anticipation, I ask—Is the game worth the candle?

April 1st, 1894.

[*Copy.*]

City Surveyor's Office,
Town Hall, C——,
March, 22nd 1894.

DEAR SIR,

The Public Health Committee desire tenders to be sent in by Tuesday next by 10 a.m. for veterinary surgeon's visits to the weekly fairs and sales in C——, held on Tuesdays and Thursdays. To make a thorough inspection as to freedom from disease or otherwise under the Contagious Diseases (Animals) Act. Also to report per post card the result of examination if free, but if animals are found to be suffering from disease to report immediately to the undersigned.

The engagement to be terminated by a week's notice given by either party, and the tender to state charge for each day's visit, also charge for making an inspection and report on animals on private premises within the Borough.—Yours faithfully,

J. MATTHEW JONES.

ON TUESDAY NEXT, at the SMITHFIELD, C——.

MR. JOHN J. CUNNAH will hold his WEEKLY SALE of FAT and STORE STOCK, including—
90 Prime Fat HEIFERS and BULLOCKS, including 3 West Highland Bullocks, from His Grace the Duke of Westminster
345 Ripe Fat SHEEP
85 Bacon, Porket, and Store PIGS
105 Ripe Fat CALVES,
Sale at Eleven o'clock prompt with Cattle.

Re SWINE FEVER.

NOTICE.—Bacon and porket pigs can be brought to this Mart without Licence.

WHAT IS TO BE DONE?

SIR,

I beg to ask you or any member of the profession through the medium of *The Record* if nothing can be done to stop the unqualified fraternity from practising.

I am situated in a thinly populated agricultural district, in a village of 2000 inhabitants, and meet qualified men about seven miles each way. In the same village there are three unqualified persons who practice and live by quackery. One of them has been prosecuted under the V.S. Act and was fined in the enormous sum of one guinea and asked to obliterate some matter on a board. These expensive legal proceedings did not stop him. Oh, no! he still flourishes. These fellows gained their experience at the public expense. My diploma cost me about £400 and now it seems a useless piece of parchment, when these quacks can sail along with impunity without any qualifications whatever.

Is it not possible to have our Act made more stringent, similar to the Apothecaries Act? Can we not form a society for the suppression of unqualified practitioners and circulate matter to enlighten the public as to the position of the veterinarian relative to the quack?

Ought not the Pharmaceutical Society to take the matter up and prosecute under the Pharmacy Act. If they did they would find it a lucrative business, at least for a time. What is to be done, or what can be done for struggling members?

A. S. K., Berks.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Messrs. F. W. Cosgrove, B. Eggleton, R. M. Malloch, H. Peele, W. Awde, J. Kitsell, F. Hobday, M. J. Carroll, Kilmallock (*late*); "Vigilant," "Agric. Journal" (Cape), "Wynberg Times" (Cape).

PROFESSIONAL ADVERTISING.

SIR,

I beg to enclose you a cutting from the catalogue of the Liverpool dog, poultry, and pigeon show held Tuesday (January 23rd ult.) The enclosed extract from "The Century's Progress" may possibly prove a source of innocent merriment to some of your numerous readers as it has already done to

VERITAS.

LIVERPOOL DOG, POULTRY, AND PIGEON SHOW. 1

You are respectfully requested to read the following Extract from

"The Century's Progress, Lancashire, 1892."

"J. KIRBY PILKINGTON, M.R.C.V.S., &c., North Haymarket Veterinary Infirmary, 47 & 49 Fox Street, Liverpool.

MEMBER OF ROYAL COLLEGE OF VETERINARY SURGEONS, LONDON.

"Among the very old-established Liverpool firms, the subject "of this notice is well worthy of honourable and even distinguished mention in the pages of the Century's Progress, Lancashire. The business which has existed and prospered since "the commencement of this century, an enquiry into the historical annals of the city will reveal was originally established "and carried on by a Mr. S. Maddox. After a number of "years he was succeeded by Mr. George Cave, on whose retirement, about nine years ago, it was taken over by the present "widely-known and highly respected proprietor, Mr. Pilkington, who has since given it his able and experienced attention. "Mr. Pilkington is well known to all large owners of horses, "and has acquired almost as great a notoriety as a specialist "for diseases of canine and other domestic pets. The entire reliance which is placed "upon his skill and judgment in the treatment of horses and other animals, his abundant and daily augmenting practice, evidences that is not misplaced. The marvellous "results he has achieved, in cases that had been abandoned as hopeless, establish his "reputation on unquestionable facts, that only long experience and high qualifications "could have enabled him to create. The premises in Fox Street are not only extensive, "but splendidly adapted to the requirements of his fine business. They consist of "well-fitted surgery with every requisite in instruments, large yard, and besides a number "of loose boxes for horses, ample room is provided for the housing of animals under "treatment or otherwise, during the absence from home of their owners, at charges that "have always been found exceedingly moderate. The loose boxes for horses are fitted "with all the latest contrivances for the comfort and health of the animals, and the "place abounds with every convenience. Mr. Pilkington is a member of the Royal "College of Veterinary Surgeons, London. Besides the new branches that his extending business will soon render it necessary to establish, he already has several which "have existed for many years, at Allerton Road, Woolton, Wellington Street, Garston, "Brunswick Place, Bootle, &c., and even at his private address at Acre Terrace, Everton Brow, he can at any time be consulted. The Fox Street surgery, which is situated "quite close to the North Haymarket, where all the farmers send their produce for "sale, is admirably placed for consultation as to the ailments of the immense number "of horses visiting this large and busy mart, and farmers oft congratulate themselves on "its proximity. We can only add, in conclusion, that this gentleman is much appreciated for the great pains he takes with all cases confided to his care, and is generally "esteemed and respected, not only for his great ability and straightforwardness in all "his dealings, but also for his genial and kindly manner that invariably leave a pleasing "recollection." **TELEPHONE No. 5032.**